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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,992	04/21/2004	Jerome Bombal	TI-35112	5501
23494 7590 04/21/2008 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265				
EXAMINER				
DARE, RYAN A				
ART UNIT		PAPER NUMBER		
2186				
NOTIFICATION DATE		DELIVERY MODE		
04/21/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com

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Office Action Summary

Application No.

10/828,992

Applicant(s)

BOMBAL, JEROME

Examiner

RYAN DARE

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Jaggar et al., US Patent 6,343,358.

3. With respect to claim 1, Jaggar teaches teaches an electronic device, comprising:

a memory structure comprising an integer M of memory word slots, wherein each memory word slot is operable to store an integer N of bits, in col. 5, line 61 through col. 6, line 2;

a scan storage circuit, operable to receive a scan word having a number of bits less than MxN, in col. 4, lines 29-37

control circuitry for causing successive scan words to be written into the scan storage circuit, for causing successive scan words to be written from the scan storage circuit into all of the memory word slots of the memory structure, and for causing successive scan words to be read from all of the memory word slots of the memory structure into the scan storage circuit, in col.4, line 66 through col. 5, line 6.

4. With respect to claim 2, Jaggar teaches the electronic device of claim 1 wherein the scan storage circuit is operable to receive a scan word consisting of N bits, in col. 4, lines 29-37 and col. 4, line 66 through col. 5, line 6.
5. With respect to claim 3, Jaggar teaches the electronic device of claim 2 wherein the control circuitry is further for causing each successive scan word to be read from the scan storage circuit during a same time period as a corresponding successive scan word is written into the scan storage circuit, in col. 4, line 66 through col. 5, line 6.
6. With respect to claim 4, Jaggar teaches the electronic device of claim 3 wherein the scan storage circuit comprises a serial shift storage circuit for serially causing each successive scan word to be read from the scan storage circuit during a same time period as corresponding successive scan word is written into the scan storage circuit, in col. 4, line 66 through col. 5, line 6.
7. With respect to claim 5, Jaggar teaches the electronic device of claim 4 wherein the scan storage circuit further comprises circuitry for causing each successive scan word to be written from the scan storage circuit into the memory structure in parallel, and for causing each successive scan word to be read from the memory structure into the scan storage circuit in col. 4, line 66 through col. 5, line 6.
8. With respect to claim 6, Jaggar teaches the electronic device of claim 5:
wherein the successive scan words to be written into the scan storage circuit comprise a test sequence, in col. 1, lines 30-36; and
further comprising circuitry for comparing the successive scan words to be read from the memory structure to the test sequence, in col. 4, line 66 through col. 5, line 6.

9. With respect to claim 7, Jaggar teaches the electronic device of claim 6: wherein each memory word slot is operable to store the integer N of bits in a corresponding set of N memory cells; and wherein each set of N memory cells comprises N latches, in col. 4, lines 29-37 and col. 4, line 66 through col. 5, line 6;

10. With respect to claim 8, Jaggar teaches the electronic device of claim 7 wherein each of the N latches comprises: a first inverter having an input providing an input to the latch and an output providing an output of the latch; and a second inverter having an input connected to the output of the first latch and having an output connected to the input of the first latch, because this is the definition of a latch. It is inherent that the Jaggar reference teaches such a latch.

11. With respect to claim 9, Jaggar teaches the electronic device of claim 7 wherein each memory word slot is operable to store the integer N of bits in a corresponding set of N memory cells, in col. 5, lines 7-57; and

wherein each set of N memory cells is operable to store incoming data without responding to a clock transition, in col. 5, lines 7-57, where in debug mode, it operates without the main clock signal.

12. With respect to claim 10, Jaggar teaches the electronic device of claim 7 wherein the width N is selected from a group consisting of 128, 64, 32, 16, 8, and 4, in col. 4, line 38.

13. With respect to claims 11-13, Applicant claims the same electronic device as claims 2-5 but dependent on claim 1, and are therefore rejected using similar logic.

14. With respect to claim 14, Applicant claims the same electronic device as claims 4-5 and is therefore rejected using similar logic.
15. With respect to claims 15-16 Applicant claims the same electronic device as claims 7-8 and is therefore rejected using similar logic.
16. With respect to claim 17, Jaggar teaches the electronic device of claim 1 wherein the memory structure, the scan storage circuit, and the control circuitry are all in a single integrated circuit, in col. 4, lines 29-37.
17. With respect to claims 18-20, Applicant claims a method of operating an electronic device that corresponds the electronic device of claims 1-3 and is therefore rejected using similar logic.
18. With respect to claim 21, Jaggar teaches the method of claim 19 and further comprising causing each successive scan word to be serially read by shifting bits out from the scan storage circuit during a same time period as causing corresponding successive scan words to be serially written by shifting bits into the scan storage circuit, in col. 4, line 66 through col. 5, line 6.
19. With respect to claim 22, Applicant claims a method that corresponds to the electronic device of claim 5 and is therefore rejected using similar logic.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Dare whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/
Supervisory Patent Examiner, Art
Unit 2186

/Ryan Dare/
April 12, 2008